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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/038,983	01/04/2002	George H. Barbehenn	SC11373ZC/10-43	9553
23400	7590	12/22/2003	EXAMINER	
POSZ & BETHARDS, PLC 11250 ROGER BACON DRIVE SUITE 10 RESTON, VA 20190			ROSENBERGER, RICHARD A	
			ART UNIT	PAPER NUMBER
			2877	

DATE MAILED: 12/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/038,983	BARBEHENN, GEORGE H.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Richard A Rosenberger	2877	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-8 and 17-20 is/are allowed.
- 6) ☒ Claim(s) 9, 11 and 15 is/are rejected.
- 7) ☒ Claim(s) 10, 12-14, 16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                   | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____   |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                          | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>0102</u> | 6) <input type="checkbox"/> Other: _____                                    |

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1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blouin et al (US 6,543,288).

The reference shows a method of determining a print medium type; [paper is a print medium and the characterization of the paper is a form of establishing its type, such as "strong enough" (one type) or "too weak" (another type). The method comprises vibrating a print medium at a predetermined frequency (by means of generation laser 10); irradiating the print medium with radiation having a predetermined intensity level (by detection laser 18) during the vibrating of the print medium at a predetermined frequency; measuring an irradiation characteristic of the print medium during the irradiating of the print medium with radiation having a predetermined intensity level and the vibrating of the print medium at a predetermined frequency (by means of the detector mentioned in column 6, line 13 ); and comparing the measured irradiation characteristic to a table of stored irradiation characteristics and corresponding print medium types to determine a type of the print medium (the interpretation of the measured results

are at least obviously made by comparing the measured results with stored results that characterize the different types of paper).

The detector of the reference detects light reflected from the medium.

3. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Blouin et al (US 6,543,288) as applied to claim 9 above, and further in view of Erny et al (US 3,791,744).

Erny et al mentions the use of a detector to control the intensity of a light source used in a measuring apparatus (see column 9, lines 56-61). It would have been obvious to use such a known intensity control arrangement in any optical measuring arrangement in order to ensure the light source intensity is maintained at a constant level.

4. The art does not appear to teach or suggest generating standing waves; thus claim 1 and claims 2-8 dependent therefrom are allowable. The art does not appear to teach or suggest using a resonant frequency of the medium; thus claims 17-20 are allowable.

Claim 16 which claims standing waves, contains allowable subject matter for that reason; see above. The art does not appear to teach or suggest the formation of the ratio of reflected and transmitted light in such a method (claim 10); using transmitted light (claim 12); using the signal as a basis to adjust ink volume and

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application rate (claim 13); or the use of data obtained before the vibrating (claim 14); thus these claims contain allowable subject matter. Claims 10, 12-14 and 16 are objected as being dependent upon an unallowed parent claim, but would be allowable if rewritten in independent form including all of the limitations of their parent claim.

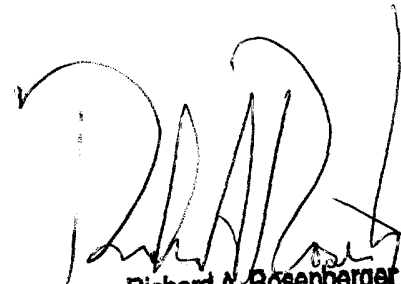
5. Keyes et al (US 5,025,665), Brodeur et al (US 5,814,730) and Brodeur et al (US 6,115,127) show other known arrangements for monitoring paper or the like by generating an acoustic wave in the paper and optically detecting the response in the paper to that wave. Adler et al (US 3,700,903) shows an arrangement for monitoring acoustic waves in a medium.

6. Papers related to this application may be submitted to Group 2800 by facsimile transmission. The faxing of such papers must conform to the notice published in the Official Gazette, 1096 OG 30 (15 November 1989). The fax number is (703) 872-9306

Any inquiry concerning this communication or earlier communications from the examiner should be directed to R. A. Rosenberger whose telephone number is (703) 308-4804.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956.

R. A. Rosenberger  
11 December 2003



Richard A. Rosenberger  
Primary Examiner